

Claim Amendments

Claim 1 (currently amended): A switch comprising:

a port card;

a gigabit network connected to the port card, the network having gigabit transmitters and gigabit receivers that communicate with each other and have assignments between each other, the network includes a mux structure that makes the assignments between transmitters and receivers;

a fabric connected to the port card through the network to send and receive stripes of fragments of packets to or from the port card, the port card, fabric and network having a plurality of modes of operation, the modes are 40G, 80G, 120G, 240G slow, 240G fast or 480G[D]; and

a control mechanism connected to the transmitters and receivers which changes the assignments according to the mode, the control mechanism changing the mode and reusing the transmitters and receivers.

Claims 2-4 (canceled)

Claim 5 (currently amended): A switch as described in Claim ~~[[4]]~~ 1 wherein the network can support two modes simultaneously as combined modes.

Claim 6 (previously presented): A switch as described in Claim 5 wherein the combined modes are 40G/80G, 80G/120G, 120G/160G, 160G/240G fast, 240G fast/240G slow, or 240G slow/480G.

Claim 7 (original): A switch as described in Claim 6 wherein each port card includes a striper and an unstriper.

Claim 8 (original): A switch as described in Claim 7 wherein the fabric includes a separator and an aggregator.

Claim 9 (previously presented): A switch as described in Claim 8 wherein the transmitters and receivers communicate with each other through the assignments at up to 1.3 GHz.

Claim 10 (original): A switch as described in Claim 9 wherein each transmitter takes in 8 bits of data and 2 bits of control and serially transmits the bits of data and control to the associated receiver.

Claim 11 (original): A switch as described in Claim 10 wherein each receiver recovers clock and data it receives by using an 8B/10B decoding protocol and provides 8 bits of data and 3 bits of control.

Claim 12 (currently amended): A method for switching fragments of packets comprising the steps of:

creating assignments between transmitters and receivers of a network;

changing a mode of fabrics, port cards and the network no more than one step up or down in the mode sequence at a time, where a node has to do with speed at which fragments are switched and each node has a speed;

changing the assignments of the transmitters and receivers according to the mode and reusing the transmitters and receivers; and

transferring the fragments of packets between fabrics and port cards with the transmitters and receivers of the network.

Claims 13 and 14 (canceled)

Claim 15 (previously presented): A method as described in Claim 12 wherein the changing the mode step includes the step of changing the mode between 40G and 80G, or 80G and 120G, or 120G and 160G or 160G and 240G slow or 240G slow 240G fast.

Claim 16 (previously presented): A method as described in Claim 15 wherein the creating step includes the step of creating assignments between the receivers and transmitters to support two modes simultaneously as combined modes.

Claim 17 (original): A method as described in Claim 16 wherein the transferring step includes the step of transferring with the transmitter 8 bits of data and 2 bits of control serially through a mux structure to the receiver assigned to the transmitter.

Claim 18 (currently amended): A switch comprising:

a port card;

a network connected to the port card, the network having transmitters and receivers that communicate with each other and have assignments between each other;

a plurality of fabrics, each of which is connected to the port card through the network to send and receive stripes of fragments of a packet to or from the port card, the port card, fabrics and network having a plurality of modes of operation, where a node has to do with speed at which fragments are switched and each node has a speed; and

a control mechanism connected to the transmitters and receivers which changes the assignments according to the mode, the control mechanism changing the mode and reusing the transmitters and receivers.

Claim 19 (previously presented): A switch as described in Claim 18 wherein the plurality of fabrics, each of which is connected to the port card through the network to send and receive stripes of fragments of a packet to or from the port card, the port card, fabrics and network having a plurality of modes of operation so data from the packets is distributed evenly across all fabrics so the switch adds bandwidth by adding fabrics and each fabric need not increase its bandwidth capacity as the switch increases bandwidth capacity.

Claim 20 (previously presented): A switch as described in Claim 19 wherein the network is a gigabit network, the transmitters are gigabit transmitters and the receivers are gigabit receivers.

Claim 21 (previously presented): A switch as described in Claim 20 wherein the network includes a mux structure that makes the assignments between transmitters and receivers.

Claim 22 (previously presented): A switch as described in Claim 21 wherein the modes are 40G, 80G, 120G, 240G slow, 240G fast or 480G.

Claim 23 (previously presented): A switch as described in Claim 22 wherein the network can support two modes simultaneously as combined modes.

Claim 24 (previously presented): A switch as described in Claim 23 wherein the combined modes are 40G/80G, 80G/120G, 120G/160G, 160G/240G fast, 240G fast/240G slow, or 240G slow/480G.

Claim 25 (previously presented): A switch as described in Claim 24 wherein each port card includes a striper and an unstriper.

Claim 26 (previously presented): A switch as described in Claim 25 wherein the fabric includes a separator and an aggregator.

Claim 27 (previously presented): A switch as described in Claim 26 wherein the transmitters and receivers communicate with each other through the assignments at up to 1.3 GHz.

Claim 28 (previously presented): A switch as described in Claim 27 wherein each transmitter takes in 8 bits of data and 2 bits of control and serially transmits the bits of data and control to the associated receiver.

Claim 29 (previously presented): A switch as described in Claim 28 wherein each receiver recovers clock and data it receives by using an 8B/10B decoding protocol and provides 8 bits of data and 3 bits of control.